Institutional Controls

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What is an IC

- Non-engineered legal controls that limit land or resource use and/or protect the integrity of a remedy

When are ICs Used?

- Used when contamination is first discovered to limit exposure
- Used during cleanups
- Used when residual contamination is left in place after site cleanup

What are ICs Used For

- Two primary purposes

  Minimize the potential for exposure to contaminants

  Protect the integrity of the remedy

How Do ICs Work

- Limiting land or resource use
- Providing information to modify behavior

When are ICs necessary?

- Threshold for ICs
  - Unlimited use and unrestricted exposure
    - Site-Specific determination
    - Residential v UU/UE

Regulatory Framework

- States are the primary decision maker
- Protect human health and the environment
- Use a combination of methods (treatment, engineering, and ICs)
- Use water and land use restrictions to supplement engineering controls
- Short-term and long-term management to prevent or limit exposure to hazardous constituents

Regulatory Framework, Continued

- ICs not generally expected to be the sole remedial action
- Legally enforceable mechanisms (Orders , Permits)

ICs not generally expected to be the sole remedy.

- Failure to evaluate accurately the true expected future use of the contaminated property.
- Failure to evaluate cost of remediation today versus the possibility of remediation at some future date.
- Failure to account for time required to remediate due to land use change when time is critical factor

Legally Enforceable Tools

- Permits
- Orders
- MOAs are not enforceable
  - Inadequate
  - Warm, fuzzy language

Future Challenges

- Long term cost of maintaining/inspection ICs
- Financial assurance for unexpected migration/maintenance or exposure
- Vapor intrusion